Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1626GMS

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS 4	MAY 10	CA/CAplus enhanced with 1900-1906 U.S. patent records
NEWS 5	MAY 11	KOREAPAT updates resume
NEWS 6	MAY 19	Derwent World Patents Index to be reloaded and enhanced
NEWS 7	MAY 30	IPC 8 Rolled-up Core codes added to CA/CAplus and USPATFULL/USPAT2
NEWS 8	MAY 30	The F-Term thesaurus is now available in CA/CAplus
NEWS 9	JUN 02	The first reclassification of IPC codes now complete in INPADOC
NEWS 10	JUN 26	TULSA/TULSA2 reloaded and enhanced with new search and and display fields
NEWS 11	JUN 28	Price changes in full-text patent databases EPFULL and PCTFULL
NEWS 12	JUl 11	CHEMSAFE reloaded and enhanced
NEWS 13	JUl 14	FSTA enhanced with Japanese patents
NEWS 14	JUl 19	Coverage of Research Disclosure reinstated in DWPI
NEWS 15	AUG 09	INSPEC enhanced with 1898-1968 archive
NEWS 16	AUG 28	ADISCTI Reloaded and Enhanced
NEWS 17	AUG 30	CA(SM)/CAplus(SM) Austrian patent law changes
NEWS 18	SEP 11	CA/CAplus enhanced with more pre-1907 records
NEWS 19	SEP 21	CA/CAplus fields enhanced with simultaneous left and right truncation
NEWS 20	SEP 25	CA(SM)/CAplus(SM) display of CA Lexicon enhanced
NEWS 21	SEP 25	CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 22	SEP 25	CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS 23	SEP 28	CEABA-VTB classification code fields reloaded with new classification scheme

NEWS EXPRESS	JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8
NEWS X25	X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 13:25:58 ON 11 OCT 2006

=>
Uploading
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Do you want to switch to the Registry File?
Choice (Y/n):
Switching to the Registry File...
Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 13:26:05 ON 11 OCT 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 10 OCT 2006 HIGHEST RN 910095-75-9
DICTIONARY FILE UPDATES: 10 OCT 2006 HIGHEST RN 910095-75-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

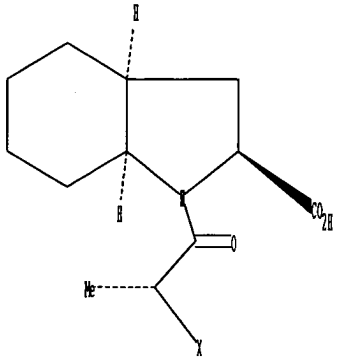
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

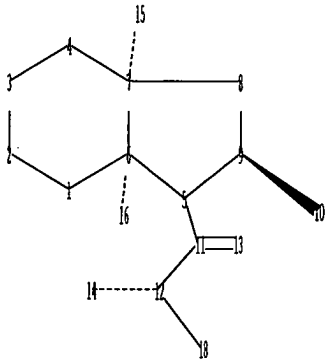
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>
Uploading C:\Program Files\Stnexp\Queries\10566562a1.str





chain nodes :
10 11 12 13 14 15 16 18
ring nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
5-11 6-16 7-15 9-10 11-12 11-13 12-14 12-18
ring bonds :
1-2 1-6 2-3 3-4 4-7 5-6 5-9 6-7 7-8 8-9
exact/norm bonds :
5-6 5-9 5-11 6-16 7-15 11-13 12-14
exact bonds :
1-2 1-6 2-3 3-4 4-7 6-7 7-8 8-9 9-10 11-12 12-18
isolated ring systems :
containing 1 :

G1:X

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 18:CLASS

Stereo Bonds:

10-9 (Single Wedge).

Stereo Chiral Centers:

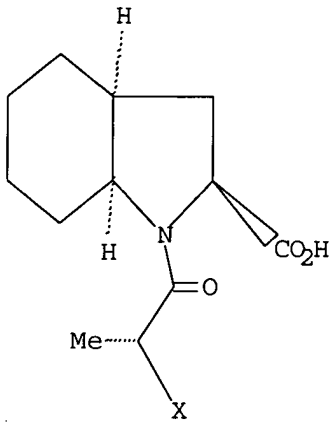
9 (Parity=Don't Care)

Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 9

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 X

Structure attributes must be viewed using STN Express query preparation.

```
=> s l1
SAMPLE SEARCH INITIATED 13:26:22 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       32 TO ITERATE

100.0% PROCESSED       32 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          301 TO      979
PROJECTED ANSWERS:               0 TO        0

L2             0 SEA SSS SAM L1

=> s l1 sss full
FULL SEARCH INITIATED 13:26:28 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      586 TO ITERATE

100.0% PROCESSED      586 ITERATIONS                                2 ANSWERS
SEARCH TIME: 00.00.01

L3             2 SEA SSS FUL L1

=> FIL HCAPLUS
COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                     166.94     167.15

FILE 'HCAPLUS' ENTERED AT 13:26:36 ON 11 OCT 2006
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```

FILE COVERS 1907 - 11 Oct 2006 VOL 145 ISS 16
FILE LAST UPDATED: 10 Oct 2006 (20061010/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3
L4 1 L3

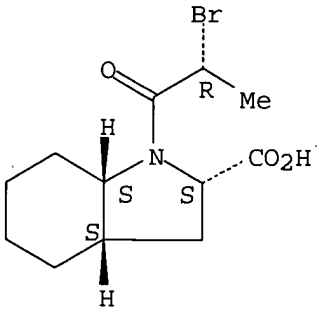
=> d l4 ibib abs hitstr tot

L4 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:67669 HCAPLUS
DOCUMENT NUMBER: 106:67669
TITLE: Indolapril
INVENTOR(S): Linan Castellet, Isidro; Oliver Mir, Monica
PATENT ASSIGNEE(S): Farmhispania S. A., Spain; Bioiberica S. A.
SOURCE: Span., 13 pp.
CODEN: SPXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Spanish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ES 537841	A1	19860116	ES 1984-537841	19841121
PRIORITY APPLN. INFO.:			ES 1984-537841	19841121

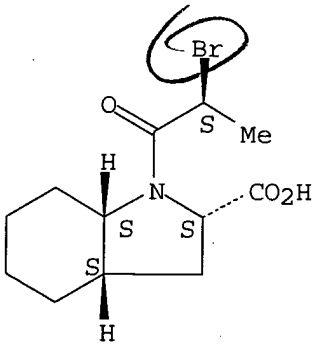
AB The title compound, useful as an antihypertensive (no data), was prepared An indole-2-carboxylic acid derivative was N-acylated by MeCHBrCOBr and NaHCO3 and the product was treated with (S)-PhCH2CH2CH(NH2)CO2Et and Et3N to give Indolapril.
IT 106534-64-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 106534-64-9 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-(2-bromo-1-oxopropyl)octahydro-, [2S-[1(S*),2α,3aβ,7aβ]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 106534-65-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for alkylation of aminobutyric acid derivative)
RN 106534-65-0 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-(2-bromo-1-oxopropyl)octahydro-, [2S-[1(R*),2α,3aβ,7aβ]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	15.23	182.38

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.75	-0.75

FILE 'REGISTRY' ENTERED AT 13:29:05 ON 11 OCT 2006
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STRUCTURE FILE UPDATES: 10 OCT 2006 HIGHEST RN 910095-75-9
DICTIONARY FILE UPDATES: 10 OCT 2006 HIGHEST RN 910095-75-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

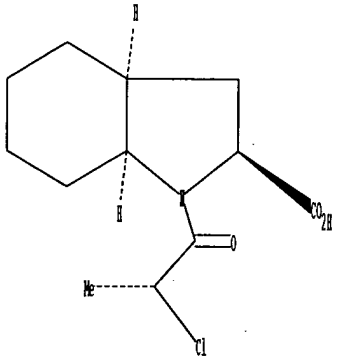
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

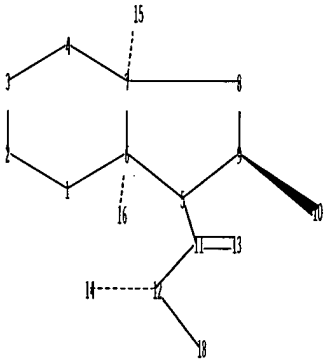
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>
Uploading C:\Program Files\Stnexp\Queries\10566562a2.str





chain nodes :
10 11 12 13 14 15 16 18
ring nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
5-11 6-16 7-15 9-10 11-12 11-13 12-14 12-18
ring bonds :
1-2 1-6 2-3 3-4 4-7 5-6 5-9 6-7 7-8 8-9
exact/norm bonds :
5-6 5-9 5-11 6-16 7-15 11-13 12-14
exact bonds :
1-2 1-6 2-3 3-4 4-7 6-7 7-8 8-9 9-10 11-12 12-18
isolated ring systems :
containing 1 :

G1:X

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 18:CLASS

Stereo Bonds:

10-9 (Single Wedge).

Stereo Chiral Centers:

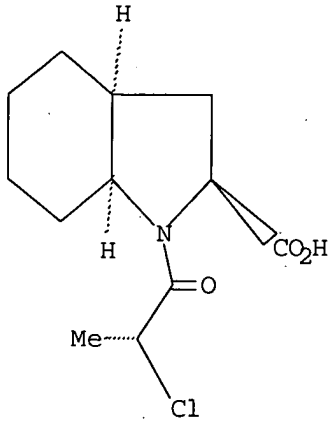
9. (Parity=Don't Care)

Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 9

L5 STRUCTURE UPLOADED

=> d l5
L5 HAS NO ANSWERS
L5 STR



G1 X

Structure attributes must be viewed using STN Express query preparation.

=> s l5
SAMPLE SEARCH INITIATED 13:29:24 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 2 TO ITERATE

100.0% PROCESSED 2 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 2 TO 124
PROJECTED ANSWERS: 0 TO 0

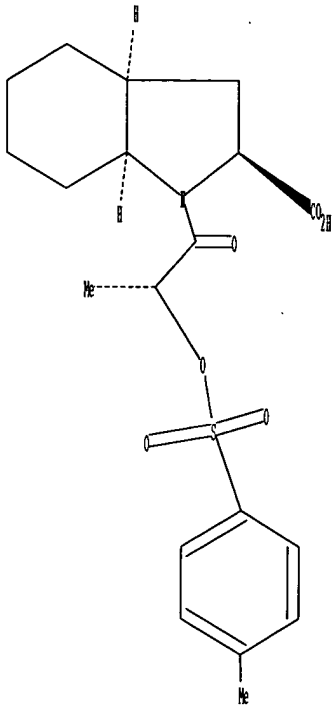
L6 0 SEA SSS SAM L5

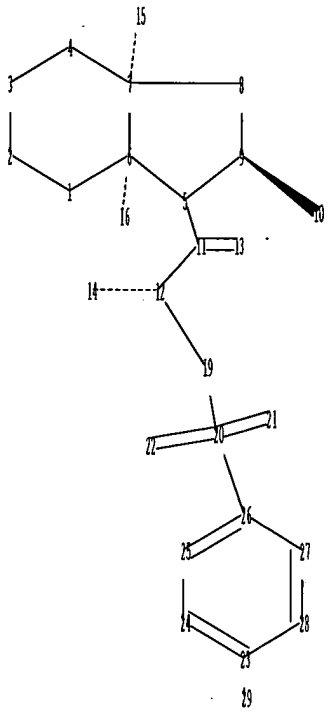
=> s l5 sss full
FULL SEARCH INITIATED 13:29:30 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 45 TO ITERATE

100.0% PROCESSED 45 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L7 0 SEA SSS FUL L5

=>
Uploading C:\Program Files\Stnexp\Queries\10566561a3.str





chain nodes :
10 11 12 13 14 15 16 19 20 21 22 29
ring nodes :
1 2 3 4 5 6 7 8 9 23 24 25 26 27 28
chain bonds :
5-11 6-16 7-15 9-10 11-12 11-13 12-14 12-19 19-20 20-21 20-22 20-26
23-29
ring bonds :
1-2 1-6 2-3 3-4 4-7 5-6 5-9 6-7 7-8 8-9 23-24 23-28 24-25 25-26 26-27
27-28
exact/norm bonds :
5-6 5-9 5-11 6-16 7-15 11-13 12-14 12-19 19-20 20-21 20-22 20-26
exact bonds :
1-2 1-6 2-3 3-4 4-7 6-7 7-8 8-9 9-10 11-12 23-29
normalized bonds :
23-24 23-28 24-25 25-26 26-27 27-28
isolated ring systems :
containing 1 : 23 :

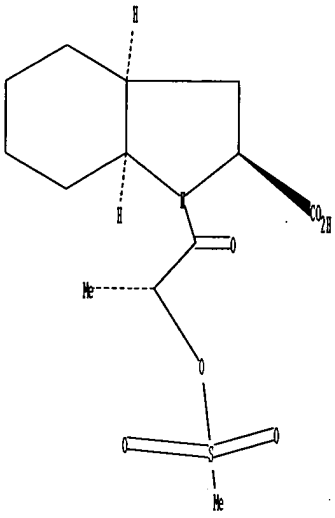
G1:X

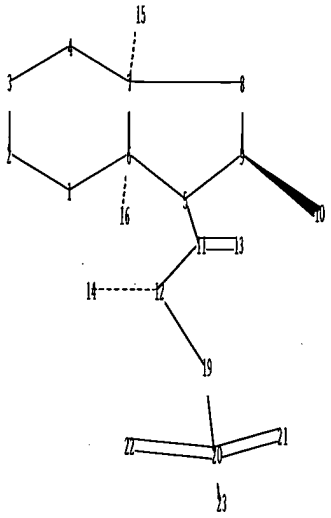
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 19:CLASS 20:CLASS
21:CLASS 22:CLASS 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:CLASS

Stereo Bonds:

10-9 (Single Wedge).

```
Stereo Chiral Centers:

9    (Parity=Don't Care)

Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 9

L8      STRUCTURE UPLOADED

=> d l8
L8 HAS NO ANSWERS
L8              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l8
SAMPLE SEARCH INITIATED 13:33:31 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -        1 TO ITERATE

100.0% PROCESSED         1 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            1 TO       80
PROJECTED ANSWERS:               0 TO        0

L9            0 SEA SSS SAM L8

=> s l8 sss full
FULL SEARCH INITIATED 13:33:37 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -       12 TO ITERATE

100.0% PROCESSED        12 ITERATIONS                               0 ANSWERS
SEARCH TIME: 00.00.01

L10           0 SEA SSS FUL L8

=>
Uploading C:\Program Files\Stnexp\Queries\10566562a4.str
```





chain nodes :
10 11 12 13 14 15 16 19 20 21 22 23
ring nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
5-11 6-16 7-15 9-10 11-12 11-13 12-14 12-19 19-20 20-21 20-22 20-23
ring bonds :
1-2 1-6 2-3 3-4 4-7 5-6 5-9 6-7 7-8 8-9
exact/norm bonds :
5-6 5-9 5-11 6-16 7-15 11-13 12-14 12-19 19-20 20-21 20-22
exact bonds :
1-2 1-6 2-3 3-4 4-7 6-7 7-8 8-9 9-10 11-12 20-23
isolated ring systems :
containing 1 :

G1:X

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 19:CLASS 20:CLASS
21:CLASS 22:CLASS 23:CLASS

Stereo Bonds:

10-9 (Single Wedge).

Stereo Chiral Centers:

9 (Parity=Don't Care)

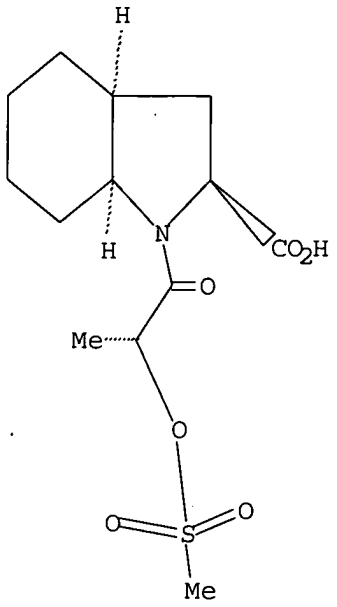
Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 9

L11 STRUCTURE UPLOADED

=> d l11

L11 HAS NO ANSWERS
L11 STR



G1 X

Structure attributes must be viewed using STN Express query preparation.

=> s l11
SAMPLE SEARCH INITIATED 13:36:57 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1 TO 80
PROJECTED ANSWERS: 0 TO 0

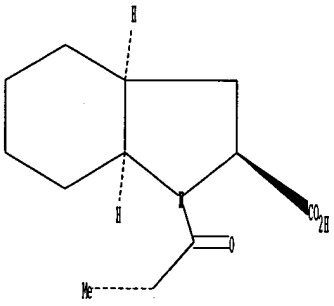
L12 0 SEA SSS SAM L11

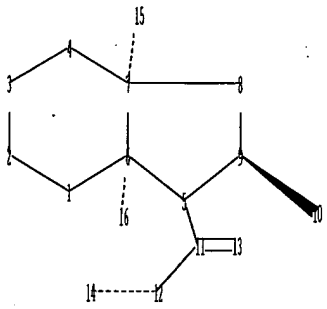
=> s l11 sss full
FULL SEARCH INITIATED 13:37:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 12 TO ITERATE

100.0% PROCESSED 12 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L13 0 SEA SSS FUL L11

=>
Uploading C:\Program Files\Stnexp\Queries\10566562a5.str





chain nodes :
10 11 12 13 14 15 16
ring nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
5-11 6-16 7-15 9-10 11-12 11-13 12-14
ring bonds :
1-2 1-6 2-3 3-4 4-7 5-6 5-9 6-7 7-8 8-9
exact/norm bonds :
5-6 5-9 5-11 6-16 7-15 11-13 12-14
exact bonds :
1-2 1-6 2-3 3-4 4-7 6-7 7-8 8-9 9-10 11-12
isolated ring systems :
containing 1 :

G1:X

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS

Stereo Bonds:

10-9 (Single Wedge).

Stereo Chiral Centers:

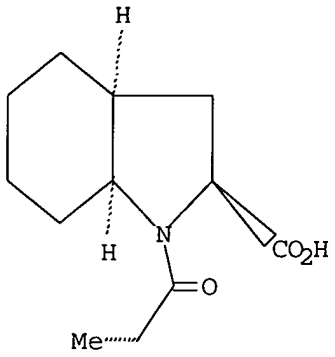
9 (Parity=Don't Care)

Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 9

L14 STRUCTURE UPLOADED

=> d l14
L14 HAS NO ANSWERS
L14 STR



G1 X

Structure attributes must be viewed using STN Express query preparation.

```
=> s l14
SAMPLE SEARCH INITIATED 13:40:03 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      143 TO ITERATE

100.0% PROCESSED      143 ITERATIONS                                 12 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         2143 TO     3577
PROJECTED ANSWERS:              33 TO      447

L15          12 SEA SSS SAM L14

=> s l14 sss full
FULL SEARCH INITIATED 13:40:10 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     3181 TO ITERATE

100.0% PROCESSED     3181 ITERATIONS                               243 ANSWERS
SEARCH TIME: 00.00.01

L16         243 SEA SSS FUL L14

=> FIL HCAPLUS
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                674.80     857.18

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)        SINCE FILE      TOTAL
                                                     ENTRY    SESSION
CA SUBSCRIBER PRICE                                  0.00      -0.75

FILE 'HCAPLUS' ENTERED AT 13:40:51 ON 11 OCT 2006
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```

FILE COVERS 1907 - 11 Oct 2006 VOL 145 ISS 16
FILE LAST UPDATED: 10 Oct 2006 (20061010/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 13:25:58 ON 11 OCT 2006)

FILE 'REGISTRY' ENTERED AT 13:26:05 ON 11 OCT 2006
L1 STRUCTURE UPLOADED
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L3 2 S L1 SSS FULL

FILE 'HCAPLUS' ENTERED AT 13:26:36 ON 11 OCT 2006
L4 1 S L3

FILE 'REGISTRY' ENTERED AT 13:29:05 ON 11 OCT 2006
L5 STRUCTURE UPLOADED
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L7 0 S L5 SSS FULL
L8 STRUCTURE UPLOADED
L9 0 S L8
L10 0 S L8 SSS FULL
L11 STRUCTURE UPLOADED
L12 0 S L11
L13 0 S L11 SSS FULL
L14 STRUCTURE UPLOADED
L15 12 S L14
L16 243 S L14 SSS FULL

FILE 'HCAPLUS' ENTERED AT 13:40:51 ON 11 OCT 2006

=> s l16
L17 1521 L16

=> s l17 and perindopril
1113 PERINDOPRIL
L18 983 L17 AND PERINDOPRIL

=> s l18 and process
2320069 PROCESS
1574509 PROCESSES
3462426 PROCESS
(PROCESS OR PROCESSES)
L19 68 L18 AND PROCESS

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=> s l19 and synthesis
       1272425 SYNTHESIS
             3 SYNTHESISES
         67891 SYNTHESES
             1 SYNTHESESES
       1310499 SYNTHESIS
                 (SYNTHESIS OR SYNTHESISES OR SYNTHESES OR SYNTHESESES)
L20          12 L19 AND SYNTHESIS

=> d l20 ibib abs hitstr tot

L20  ANSWER 1 OF 12  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2006:796623  HCAPLUS
DOCUMENT NUMBER:          145:230528
TITLE:                    Process for making highly pure
                          perindopril erbumine
INVENTOR(S):              Kumar, Ashok; Soudagar, Satish Rajanikant; Mathur,
                          Arpana; Shah, Chirag Hasmukh; Gunjal, Sanjay Tukaram;
                          Metil, Dattatray Shamrao; Kelkar, Rahul Suresh;
                          Thakare, Devendra Digambar; Kumar, Bindu Manoj; Nair,
                          Raji
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 6pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    --------------------     --------
     US 2006178422        A1     20060810    US 2005-140226           20050527
PRIORITY APPLN. INFO.:                      IN 2004-MU566        A   20040531
OTHER SOURCE(S):          CASREACT 145:230528
AB   A process for the synthesis and isolation of
     (2S,3aS,7aS)-1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-
     oxopropyl]octahydro-1H-indole-2-carboxylic acid and its tert-butylamine
     salt, comprises the amidation of (2S,3aS,7aS)-octahydroindole-2-carboxylic
     acid benzyl ester and N-[(S)1-carboxybutyl]-(S)-alanine Et ester in
     nonreactive solvents in turn avoiding the formation of the impurity
     N-acetyl (2S,3aS,7aS)-octahydroindole-2-carboxylic acid benzyl ester.  The
     de-protection of benzyl ester group is optimized by catalytic
     hydrogenolysis and then isolation of the product from an aqueous layer by
     extraction using an organic solvent, which eliminates the need for
lyophilization.
     This yields perindopril erbumine free of contaminants derivable
     from dicyclohexylcarbodiimide (e.g., dicyclohexylurea) and impurities
     originated by the use of Et acetate.
IT   82834-16-0P, Perindopril
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (in a process for making highly pure perindopril
        erbumine)
RN   82834-16-0  HCAPLUS
CN   1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-
     (ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)- (9CI)
     (CA INDEX NAME)
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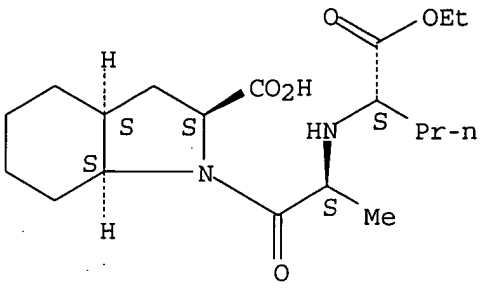
Absolute stereochemistry. Rotation (-).

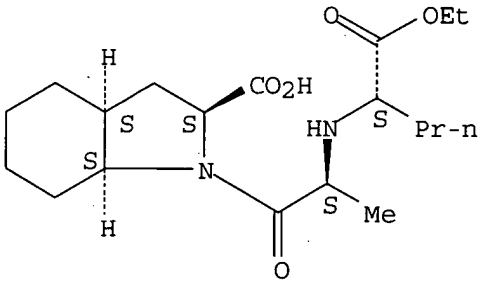


IT 107133-36-8P, Perindopril erbumine
RL: SPN (Synthetic preparation); PREP (Preparation)
(process for making highly pure perindopril erbumine)
RN 107133-36-8 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)-, compd. with 2-methyl-2-propanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

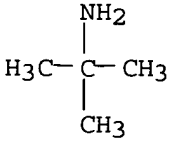
CRN 82834-16-0
CMF C19 H32 N2 O5

Absolute stereochemistry. Rotation (-).



CM 2

CRN 75-64-9
CMF C4 H11 N



L20 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:680403 HCAPLUS

DOCUMENT NUMBER: 145:124844
TITLE: Process for the synthesis of (2S,3aS,7aS)-1-(S)-alanyloctahydro-1H-indole-2-carboxylic acid derivatives and use in the synthesis of perindopril
INVENTOR(S): Kumar, Ashok; Soudagar, Satish Rajanikant; Mathur, Arpana; Gunjal, Sanjay Tukaram; Panda, Nalinakshya Balaram; Jadhav, Dilip Uttam
PATENT ASSIGNEE(S): IPCA Laboratories Limited, India
SOURCE: Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1679072	A1	20060712	EP 2005-113099	20051230
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				

PRIORITY APPLN. INFO.: IN 2005-MU17 A 20050106
OTHER SOURCE(S): CASREACT 145:124844

AB The invention relates perindopril [(2S,3aS,7aS)-1-[(2S)-2-[(S)-1-(ethoxycarbonyl)butylamino]propionyl]octahydro-1H-indole-2-carboxylic acid] aralkyl ester salts used in the synthesis of perindopril. Thus, (2S,3aS,7aS)-octahydro-1H-indole-2-carboxylic acid was treated with N-[(S)-1-(ethoxycarbonyl)butyl]-L-alanine in CH2Cl2 in the presence of Et3N, 1-hydroxybenzotriazole, and dicyclohexylcarbodiimide to afford 99% perindopril benzyl ester. Conversion of the latter into the oxalate salt, followed by hydrogenolysis over 5% Pd/C and reaction with tert-butylamine yielded perindopril erbumine.

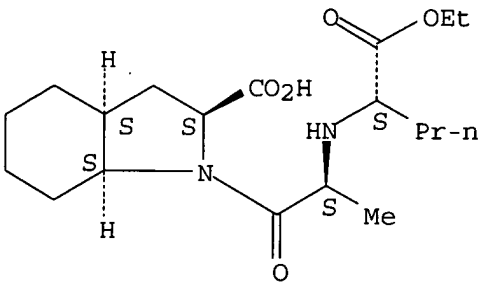
IT 107133-36-8P, Perindopril erbumine
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for synthesis of alanyloctahydroindolecarboxylic acid derivs. in synthesis of perindopril)

RN 107133-36-8 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)-, compd. with 2-methyl-2-propanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

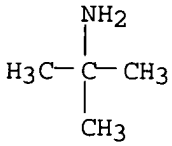
CRN 82834-16-0
CMF C19 H32 N2 O5

Absolute stereochemistry. Rotation (-).



CM 2

CRN 75-64-9
CMF C4 H11 N



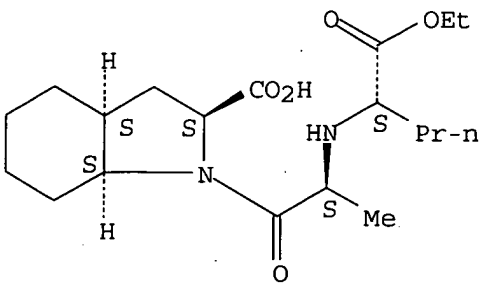
IT 897922-10-0P 897922-12-2P 897922-14-4P
897922-16-6P 897922-21-3P 897922-22-4P
897922-23-5P 897922-25-7P 897922-27-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for synthesis of alanyloctahydroindolecarboxylic acid derivs. in synthesis of perindopril)

RN 897922-10-0 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)-, ethanedioate (9CI) (CA INDEX NAME)

CM 1

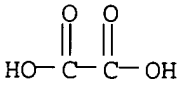
CRN 82834-16-0
CMF C19 H32 N2 O5

Absolute stereochemistry. Rotation (-).



CM 2

CRN 144-62-7
CMF C2 H2 O4

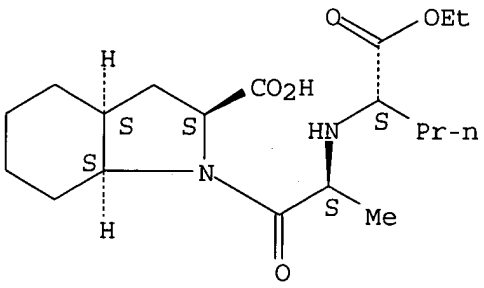


RN 897922-12-2 HCAPLUS
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2R,3R)-, compd. with (2S,3aS,7aS)-1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-1H-indole-2-carboxylic acid (9CI) (CA INDEX NAME)

CM 1

CRN 82834-16-0
CMF C19 H32 N2 O5

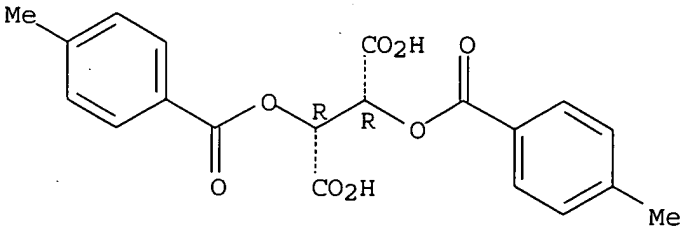
Absolute stereochemistry. Rotation (-).



CM 2

CRN 32634-66-5
CMF C20 H18 O8

Absolute stereochemistry. Rotation (-).

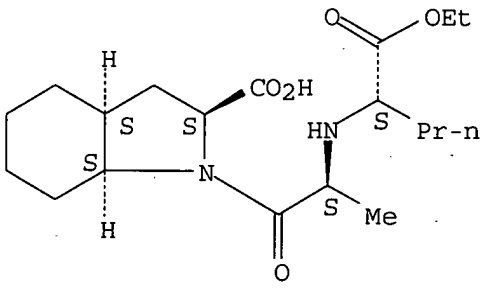


RN 897922-14-4 HCAPLUS
CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)-, compd. with (2S,3aS,7aS)-1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-1H-indole-2-carboxylic acid (9CI) (CA INDEX NAME)

CM 1

CRN 82834-16-0
CMF C19 H32 N2 O5

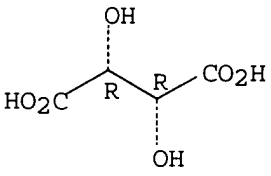
Absolute stereochemistry. Rotation (-).



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.

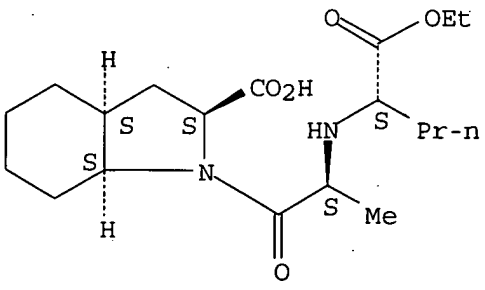


RN 897922-16-6 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)-, phosphate (9CI) (CA INDEX NAME)

CM 1

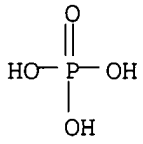
CRN 82834-16-0
CMF C19 H32 N2 O5

Absolute stereochemistry. Rotation (-).



CM 2

CRN 7664-38-2
CMF H3 O4 P

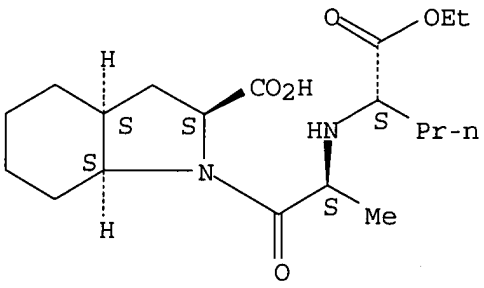


RN 897922-21-3 HCAPLUS
CN 1,2-Benzenedicarboxylic acid, compd. with (2S,3aS,7aS)-1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-1H-indole-2-carboxylic acid (9CI) (CA INDEX NAME)

CM 1

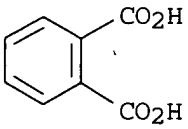
CRN 82834-16-0
CMF C19 H32 N2 O5

Absolute stereochemistry. Rotation (-).



CM 2

CRN 88-99-3
CMF C8 H6 O4

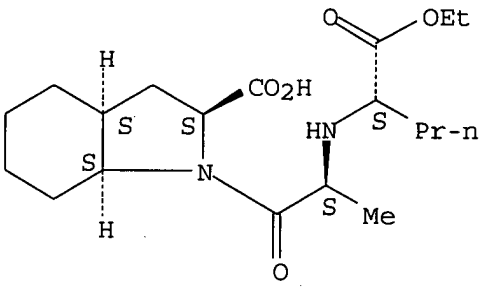


RN 897922-22-4 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)-, (1S,4R)-7,7-dimethyl-2-oxobicyclo[2.2.1]heptane-1-methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 82834-16-0
CMF C19 H32 N2 O5

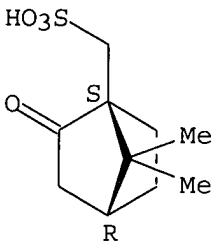
Absolute stereochemistry. Rotation (-).



CM 2

CRN 3144-16-9
CMF C10 H16 O4 S

Absolute stereochemistry. Rotation (+).

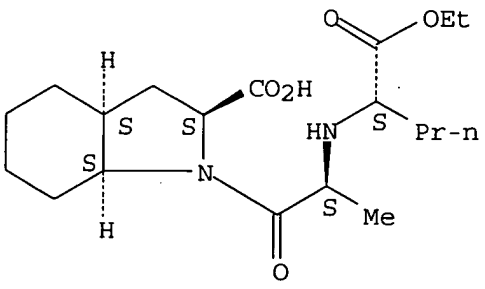


RN 897922-23-5 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)-, 2-hydroxy-1,2,3-propanetricarboxylate (9CI) (CA INDEX NAME)

CM 1

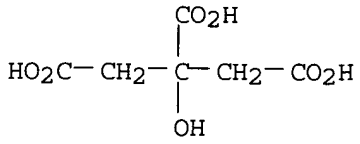
CRN 82834-16-0
CMF C19 H32 N2 O5

Absolute stereochemistry. Rotation (-).



CM 2

CRN 77-92-9
CMF C6 H8 O7

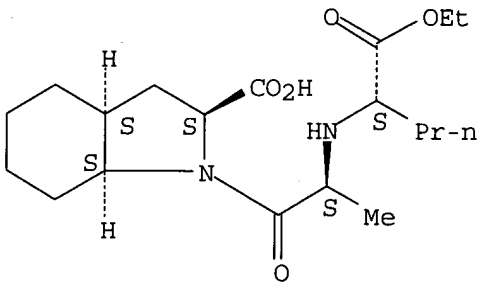


RN 897922-25-7 HCAPLUS
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2S,3S)-, compd. with (2S,3aS,7aS)-1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-1H-indole-2-carboxylic acid (9CI) (CA INDEX NAME)

CM 1

CRN 82834-16-0
CMF C19 H32 N2 O5

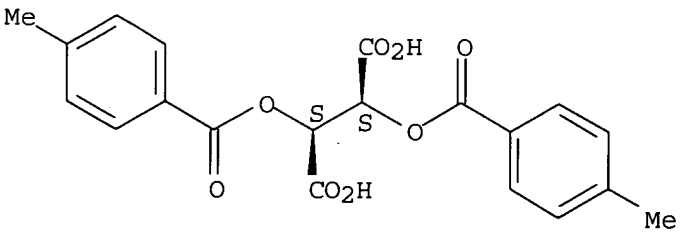
Absolute stereochemistry. Rotation (-).



CM 2

CRN 32634-68-7
CMF C20 H18 O8

Absolute stereochemistry. Rotation (+).



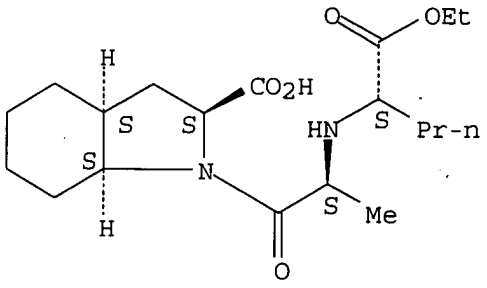
RN 897922-27-9 HCAPLUS
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2R,3R)-rel-, compd. with (2S,3aS,7aS)-1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-

oxopropyl]octahydro-1H-indole-2-carboxylic acid (9CI) (CA INDEX NAME)

CM 1

CRN 82834-16-0
CMF C19 H32 N2 O5

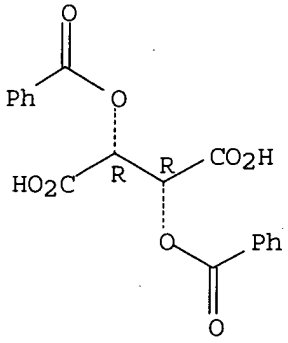
Absolute stereochemistry. Rotation (-).



CM 2

CRN 22333-70-6
CMF C18 H14 O8

Relative stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1262577 HCAPLUS
DOCUMENT NUMBER: 144:7098
TITLE: Process for the preparation of perindopril and its salts
INVENTOR(S): Merslavic, Marjo; Smid, Janja; Tomsic, Zdenka
PATENT ASSIGNEE(S): Krka, Tovarna Zdravil D.D. Novo Mesto, Slovenia
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005113500	A2	20051201	WO 2005-EP5048	20050510
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
SI 21800	C	20051231	SI 2004-143	20040514
SI 21852	C	20060228	SI 2004-235	20040805
PRIORITY APPLN. INFO.:			SI 2004-143 A	20040514
			SI 2004-235 A	20040805

OTHER SOURCE(S): CASREACT 144:7098; MARPAT 144:7098

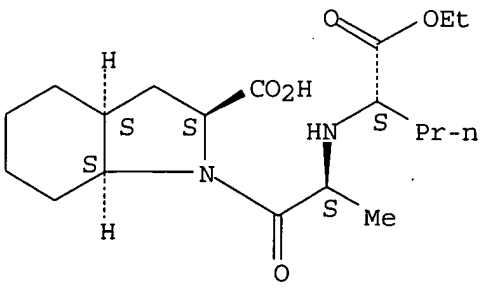
AB The invention relates to a process for the preparation of the ACE inhibitor perindopril, its pharmaceutically-acceptable salts and intermediates obtained in the process. The process involves conversion of N-[(1S)-1-carbethoxybutyl]-L-alanine to the acid chloride hydrochloride and reaction with (2S,3aS,7aS)-octahydroindole-2-carboxylic acid or a an ester or salt. The examples describe the synthesis of perindopril erbumine by reactions carried out in CH2Cl2.

IT 82834-16-0P, Perindopril 107133-36-8P, Perindopril erbumine 869954-04-1P 869954-08-5P 869954-09-6P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for preparation of perindopril and its salts)

RN 82834-16-0 HCAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



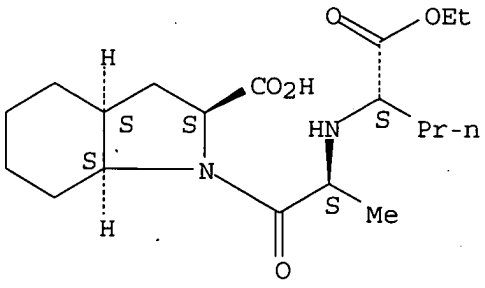
RN 107133-36-8 HCAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)-, compd. with 2-methyl-2-propanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

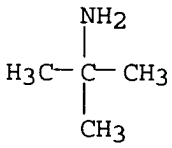
CRN 82834-16-0
CMF C19 H32 N2 O5

Absolute stereochemistry. Rotation (-).



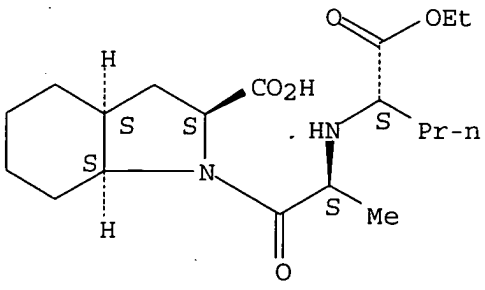
CM 2

CRN 75-64-9
CMF C4 H11 N



RN 869954-04-1 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, monopotassium salt, (2S,3aS,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

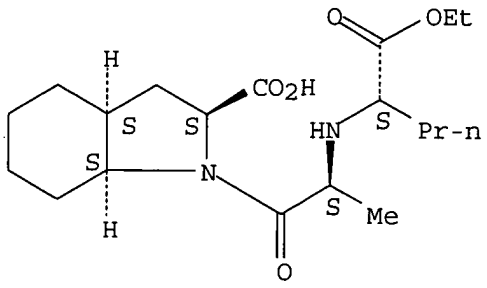


● K

RN 869954-08-5 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, monolithium salt,

(2S,3aS,7aS)- (9CI) (CA INDEX NAME)

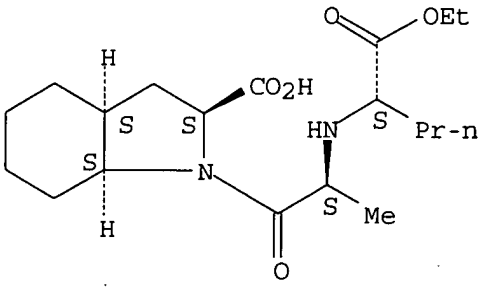
Absolute stereochemistry. Rotation (-).



● Li

RN 869954-09-6 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, monosodium salt, (2S,3aS,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● Na

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1117891 HCAPLUS
DOCUMENT NUMBER: 143:367597
TITLE: Process for the preparation of perindopril
INVENTOR(S): Kankan, Rajendra Narayanrao; Rao, Dharmaraj Ramachandra
PATENT ASSIGNEE(S): Neopharma Limited, UK
SOURCE: Brit. UK Pat. Appl., 21 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2413128	A1	20051019	GB 2004-8258	20040413
WO 2005100317	A1	20051027	WO 2005-GB1355	20050407

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2004-8258 A 20040413

OTHER SOURCE(S): MARPAT 143:367597

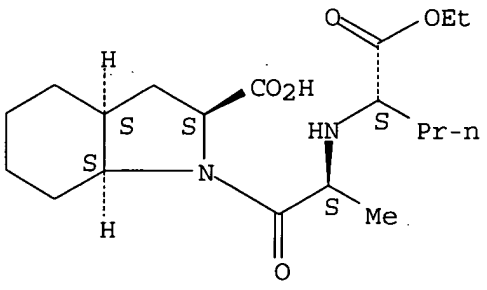
AB A process for preparing perindopril or a pharmaceutically-acceptable salt comprises coupling a 4-halo-, 4-alkoxy- or 4-nitrobenzyl ester of (2S,3aS,7aS)-2-carboxyoctahydroindole with N-[(S)-1-carbethoxybutyl]-L-alanine (1) in the presence of DCC and HOBT, followed by catalytic hydrolgenolysis. The starting ester was obtained from (S)-indoline-2-carboxylic acid by hydrogenation-esterification and 1 was obtained from norvaline Et ester and pyruvic acid under catalytic hydrogenation conditions. The method was applied to the synthesis perindopril erbumine (20.5 g obtained from 24 g 4-chlorobenzyl ester and 21.26 g 1).

IT 82834-16-0P, Perindopril 107133-36-8P, Perindopril erbumine
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of perindopril by acylation of octahydroindolecarboxylates with ethoxycarbonylbutylalanine)

RN 82834-16-0 HCAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



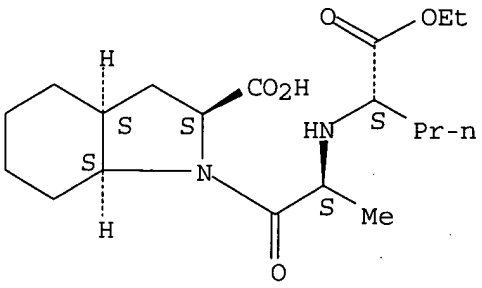
RN 107133-36-8 HCAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)-, compd. with 2-methyl-2-propanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

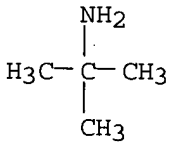
CRN 82834-16-0
CMF C19 H32 N2 O5

Absolute stereochemistry. Rotation (-).



CM 2

CRN 75-64-9
CMF C4 H11 N



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1016010 HCAPLUS
DOCUMENT NUMBER: 141:424441
TITLE: Process for the preparation of enalapril maleate and related compounds having ACE inhibitory action
INVENTOR(S): Jenko, Branko
PATENT ASSIGNEE(S): Lek Pharmaceuticals D.D., Slovenia
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004101515	A1	20041125	WO 2004-SI21	20040507

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

SI 21507	C	20041231	SI 2003-123	20030516
EP 1628956	A1	20060301	EP 2004-731808	20040507

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

PRIORITY APPLN. INFO.:	SI 2003-123	A	20030516
	WO 2004-SI21	W	20040507

OTHER SOURCE(S): MARPAT 141:424441

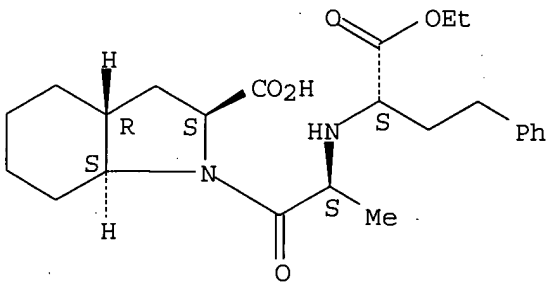
AB The invention relates to a process for the preparation of ACE-inhibitory peptides (S,S)-R1CH2CH2CH(CO2R2)-L-Ala-NR3R4 (R1 is H, alkyl, phenyl; R2 is H, alkyl; NR3R4 is a proline, 2-piperidinecarboxylic or hexahydro-2-azepinecarboxylic acid residue and related aza/thia analogs and their esters or metal salts) in which the carboxy group of (S,S)-R1CH2CH2CH(CO2R2)-L-Ala-OH is activated with a uronium salt in an aprotic solvent prior to coupling with an amino acid HNR3R4. Thus, a mixture of N-[1(S)-(ethoxycarbonyl)-3-phenylpropyl]-L-alanine, L-proline, Et3N and O-(benzotriazol-1-yl)-N,N,N'N'-tetramethyluronium hexafluorophosphate in acetonitrile-DMF was stirred for 30 min at room temperature to afford enalapril (85.4% yield of maleate).

IT 87679-37-6P, Trandolapril
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of enalapril maleate and related compds. having ACE inhibitory action)

RN 87679-37-6 HCAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)-3-phenylpropyl]amino]-1-oxopropyl]octahydro-, (2S,3aR,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	2004:266899 HCAPLUS
DOCUMENT NUMBER:	140:253919
TITLE:	Process for the synthesis of N-[(S)-1-(ethoxycarbonyl)butyl]-(S)-alanine for use in the synthesis of perindopril
INVENTOR(S):	Breard, Fabienne; Lecouve, Jean-Pierre

PATENT ASSIGNEE(S): Les Laboratoires Servier, Fr.
SOURCE: Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1403278	A1	20040331	EP 2003-292404	20030930
EP 1403278	B1	20050608		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
AT 297407	E	20050615	AT 2003-292404	20030930
PT 1403278	T	20050930	PT 2003-292404	20030930
ES 2240926	T3	20051016	ES 2003-3292404	20030930
WO 2005033127	A1	20050414	WO 2004-FR2463	20040929
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

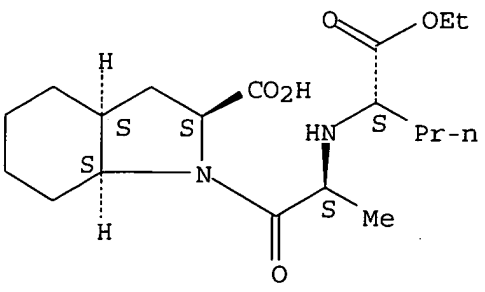
PRIORITY APPLN. INFO.: EP 2003-292404 A 20030930
OTHER SOURCE(S): MARPAT 140:253919

AB Perindopril intermediate (S)-EtO2CCHPr-L-Ala-OH was prepared by condensation of L-alanine alkyl or benzyl ester with Et glyoxylate or Et chloro(cyclohexyloxy)acetate, followed by allylation with allylzinc bromide, and catalytic hydrogenation.

IT 82834-16-0P, Perindopril
RL: PNU (Preparation, unclassified); PREP (Preparation)
(synthesis of [(ethoxycarbonyl)butyl]alanine for use in preparation of perindopril)

RN 82834-16-0 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:266897 HCAPLUS
DOCUMENT NUMBER: 140:253917
TITLE: Process for the synthesis of perindopril and its pharmaceutically-acceptable salts
INVENTOR(S): Dubuffet, Thierry; Langlois, Pascal
PATENT ASSIGNEE(S): Les Laboratoires Servier, Fr.
SOURCE: Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1403275	A1	20040331	EP 2003-290485	20030228
EP 1403275	B1	20051019		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
AT 307139	E	20051115	AT 2003-290485	20030228
ES 2250846	T3	20060416	ES 2003-3290485	20030228
AU 2004217599	A1	20040916	AU 2004-217599	20040227
WO 2004078107	A2	20040916	WO 2004-FR446	20040227
WO 2004078107	A3	20041021		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1753906	A	20060329	CN 2004-80005405	20040227
JP 2006519177	T2	20060824	JP 2006-500163	20040227
US 2006149081	A1	20060706	US 2005-547131	20050824
PRIORITY APPLN. INFO.:			EP 2003-290485 A	20030228
			WO 2004-FR446 A	20040227

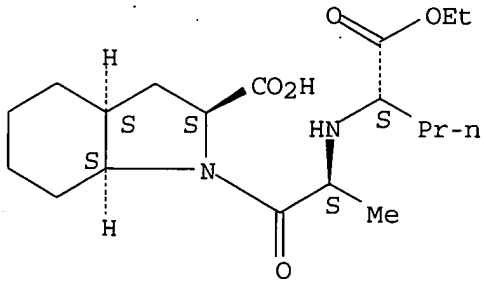
OTHER SOURCE(S): MARPAT 140:253917

AB A method for the synthesis of perindopril involves coupling of (2S)-2,3,4,5,6,7-hexahydro-1H-indolecarboxylic acid (I) or an ester with N-[(S)-1-carbethoxybutyl]-L-alanine, followed by catalytic hydrogenation. I benzyl ester tosylate was prepared by reaction of 1-(1-cyclohexen-1-yl)pyrrolidine with (R)-ICH2CH(NBoc)CO2CH2Ph (Boc = tert-butoxycarbonyl), followed by deprotection and cyclization. Perindopril was converted into its tert-butylamine salt.

IT 82834-16-0P, Perindopril 107133-36-8P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of perindopril and pharmaceutically-acceptable salts)

RN 82834-16-0 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

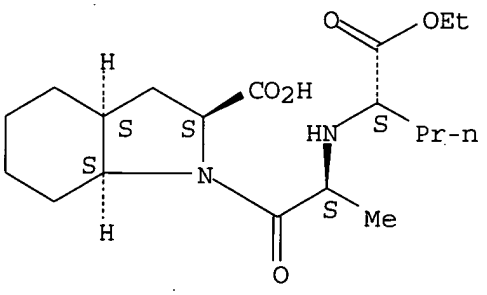


RN 107133-36-8 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)-, compd. with 2-methyl-2-propanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

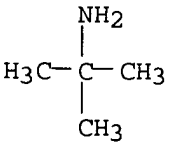
CRN 82834-16-0
CMF C19 H32 N2 O5

Absolute stereochemistry. Rotation (-).



CM 2

CRN 75-64-9
CMF C4 H11 N



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:247009 HCAPLUS
DOCUMENT NUMBER: 140:253916
TITLE: Process for the synthesis of

N-[(S)-1-(ethoxycarbonyl)butyl]-(S)-alanine for use in preparation of perindopril

INVENTOR(S): Breard, Fabienne; Lecouve, Jean-Pierre
PATENT ASSIGNEE(S): Les Laboratoires Servier, Fr.
SOURCE: Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1400531	A1	20040324	EP 2003-292405	20030930
EP 1400531	B1	20060104		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
AT 315046	E	20060215	AT 2003-292405	20030930
ES 2256693	T3	20060716	ES 2003-3292405	20030930
WO 2005033128	A1	20050414	WO 2004-FR2464	20040929
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

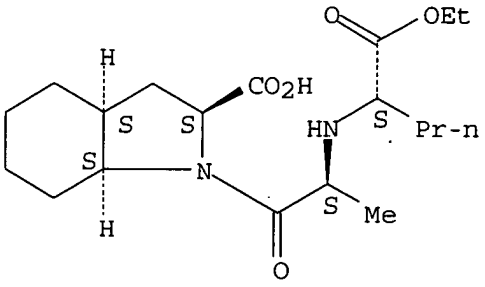
PRIORITY APPLN. INFO.: EP 2003-292405 A 20030930
OTHER SOURCE(S): MARPAT 140:253916

AB (S)-EtO2CCHPr-L-Ala-OH was prepared by a multistep procedure starting with allylation of Et glyoxylate with allylzinc bromide. Subsequent steps were resolution using Pseudomonas Fluorescens lipase, triflation of (R)-EtO2CCH(OH)CH2CH:CH2, substitution reaction with benzyl L-alaninate, and catalytic hydrogenolysis.

IT 82834-16-0P, Perindopril
RL: PNU (Preparation, unclassified); PREP (Preparation)
(process for synthesis of (carbethoxybutyl)-L-alanine in preparation of perindopril)

RN 82834-16-0 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:947713 HCAPLUS
DOCUMENT NUMBER: 139:381760
TITLE: Method for synthesis of perindopril and its pharmaceutically acceptable salts
INVENTOR(S): Dubuffet, Thierry; Lecouve, Jean-Pierre
PATENT ASSIGNEE(S): Les Laboratoires Servier, Fr.
SOURCE: Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1367061	A1	20031203	EP 2003-291601	20030630
EP 1367061	B1	20060104		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
AT 315043	E	20060215	AT 2003-291601	20030630
ES 2256689	T3	20060716	ES 2003-3291601	20030630
AU 2004253721	A1	20050113	AU 2004-253721	20040628
WO 2005003153	A1	20050113	WO 2004-FR1637	20040628
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1802384	A	20060712	CN 2004-80016014	20040628
US 2006178421	A1	20060810	US 2005-562490	20051222

PRIORITY APPLN. INFO.: EP 2003-291601 A 20030630
WO 2004-FR1637 W 20040628
OTHER SOURCE(S): CASREACT 139:381760; MARPAT 139:381760

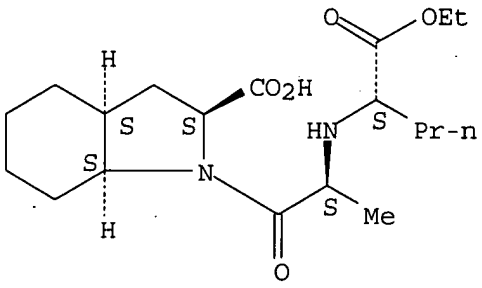
AB A method for the synthesis of perindopril and its pharmaceutically-acceptable salts (e.g., the tert-butylamine) involves cyclocondensation reaction of N-[(S)-1-carbethoxybutyl]-(S)-alanine with

sulfinyl chlorides R1SOCl (R1 = imidazolyl, benimidazolyl, or tetrazolyl) to give Et (2S)-2-[(4S)-4-methyl-2,5-dioxo-1,2,3-oxathiazolidin-3-yl]pentanoate, which is amidated with (2S)-2,3,4,5,6,7-hexahydro-1H-indole-2-carboxylic acid and hydrogenated over 10% Pt/C to give perindopril.

IT 82834-16-0P, Perindopril 107133-36-8P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of perindopril via cyclocondensation of carbethoxybutylalanine with imidazolesulfinyl chloride)

RN 82834-16-0 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

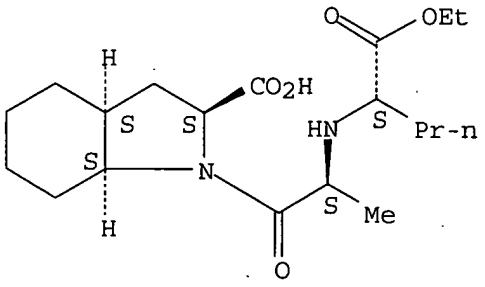


RN 107133-36-8 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)-, compd. with 2-methyl-2-propanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

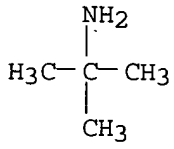
CRN 82834-16-0
CMF C19 H32 N2 O5

Absolute stereochemistry. Rotation (-).



CM 2

CRN 75-64-9
CMF C4 H11 N



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:910218 HCAPLUS
DOCUMENT NUMBER: 139:365227
TITLE: New process for the synthesis of N-[(S)-1-carboxybutyl]-(S)-alanine esters and their use in the synthesis of perindopril
INVENTOR(S): Breard, Fabienne; Fugier, Claude
PATENT ASSIGNEE(S): Les Laboratoires Servier, Fr.
SOURCE: Eur. Pat. Appl., 5 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

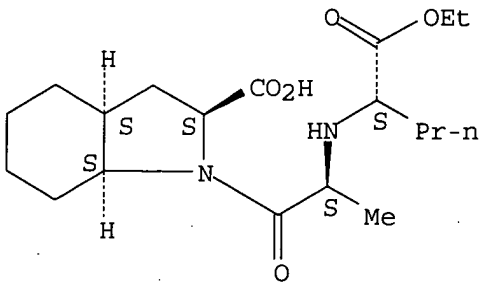
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1362845	A2	20031119	EP 2003-292145	20030901
EP 1362845	A3	20040331		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
AU 2004270432	A1	20050317	AU 2004-270432	20040831
CA 2536926	AA	20050317	CA 2004-2536926	20040831
WO 2005023755	A1	20050317	WO 2004-FR2213	20040831
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1835911	A	20060920	CN 2004-80023534	20040831
NO 2006001152	A	20060310	NO 2006-1152	20060310
PRIORITY APPLN. INFO.:			EP 2003-292145 A	20030901
			WO 2004-FR2213 W	20040831

OTHER SOURCE(S): CASREACT 139:365227; MARPAT 139:365227

AB Title alanine derivs. (S)-RO2CCHPr-L-Ala-OH (R = C1-C6 alkyl) were prepared from N-protected (S)-5-methyl-2-morpholinone by propylation or allylation/hydrogenation, ring opening by LiOH, esterification, oxidation of the hydroxy group, and deprotection. In an example, N-[(S)-1-carbethoxybutyl]-(S)-alanine hydrochloride was prepared via allylation of Boc-protected (S)-5-methyl-2-morpholinone and treatment of tert-Bu (3S,5S)-5-methyl-3-propyl-2-oxo-4-morpholinecarboxylate with LiOH in aqueous MeCN and then EtI to afford intermediate Et (2S)-2-[(tert-

butoxycarbonyl)[(1S)-2-hydroxy-1-methylethyl]amino]pentanoate.
IT 82834-16-0P, Perindopril
RL: PNU (Preparation, unclassified); PREP (Preparation)
(process for synthesis of N-[(S)-carboxybutyl]-L-alanine esters for use in synthesis of perindopril)
RN 82834-16-0 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L20 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:609507 HCAPLUS
DOCUMENT NUMBER: 139:149930
TITLE: Process for the preparation of high purity perindopril and intermediates useful in its synthesis
INVENTOR(S): Simig, Gyula; Mezei, Tibor; Porcs-Makkay, Marta; Mandi, Attila
PATENT ASSIGNEE(S): Les Laboratoires Servier, Fr.
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1333026	A1	20030806	EP 2002-290206	20020130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CA 2474003	AA	20030807	CA 2003-2474003	20030129
WO 2003064388	A2	20030807	WO 2003-IB691	20030129
WO 2003064388	A3	20040205		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

EE 200400107	A	20041015	EE 2004-107		20030129
BR 2003007293	A	20041221	BR 2003-7293		20030129
CN 1622936	A	20050601	CN 2003-802714		20030129
US 2005119492	A1	20050602	US 2003-503272		20030129
JP 2005521667	T2	20050721	JP 2003-564011		20030129
NO 2004003472	A	20040820	NO 2004-3472		20040820
BG 108858	A	20050531	BG 2004-108858		20040827
PRIORITY APPLN. INFO.:			EP 2002-290206	A	20020130
			WO 2003-IB691	W	20030129

OTHER SOURCE(S): MARPAT 139:149930

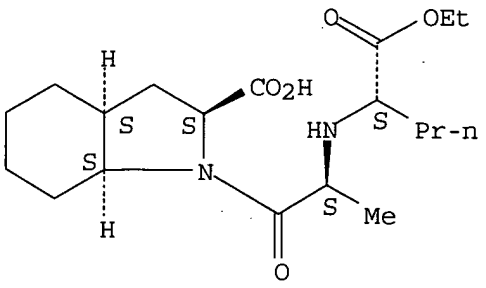
AB The invention relates to 1-[2(S)-[1(S)-(ethoxycarbonyl)butylamino]propionyl]-(3aS,7aS)octahydroindole-2(S)-carboxylic acid (perindopril) and its tert-butylamine salt, free of contaminants derivable from dicyclohexylcarbodiimide, and a process for their synthesis. The invention also relates to N-[1-(ethoxycarbonyl)butyl]-N-(alkoxycarbonyl)alanine intermediates used in the synthesis of perindopril, a known ACE inhibitor. Thus, N-[1-(ethoxycarbonyl)butyl]-N-(ethoxycarbonyl)alanine, prepared by ethoxycarbonylation of N-[1-(ethoxycarbonyl)butyl]alanine, was treated with thionyl chloride in CH2Cl2 and acylated by perhydroindole-2-carboxylic acid in THF at reflux for 4-4.5 h. The product was treated with tert-butylamine to afford 55% perindopril eburmine.

IT 82834-16-0P, Perindopril 107133-36-8P, Perindopril ebumine
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for preparation of high purity perindopril and intermediates useful in its synthesis)

RN 82834-16-0 HCAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



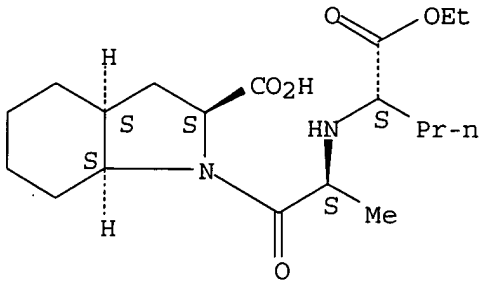
RN 107133-36-8 HCAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)-, compd. with 2-methyl-2-propanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

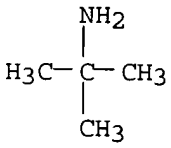
CRN 82834-16-0
CMF C19 H32 N2 O5

Absolute stereochemistry. Rotation (-).



CM 2

CRN 75-64-9
CMF C4 H11 N



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

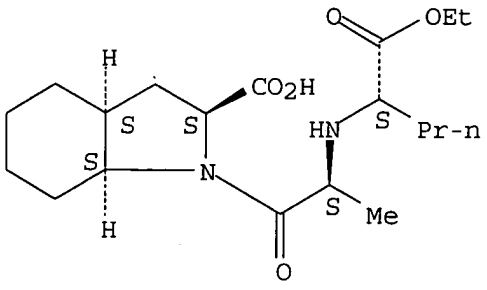
L20 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:641139 HCAPLUS
DOCUMENT NUMBER: 138:142607
TITLE: On-line simultaneous determination of S- and R-perindopril using amperometric biosensors as detectors in flow systems
AUTHOR(S): Stefan, Raluca-Ioana; van Staden, Jacobus F.; Mulaudzi, Ludwig Vusimuzi; Aboul-Enein, Hassan Y.
CORPORATE SOURCE: Department of Chemistry, University of Pretoria, Pretoria, 0002, S. Afr.
SOURCE: Analytica Chimica Acta (2002), 467(1-2), 189-195
CODEN: ACACAM; ISSN: 0003-2670
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two types of flow systems were selected for the simultaneous assay of S- and R-perindopril (pdp): flow injection anal. (FIA) and sequential injection anal. (SIA). The SIA system was more efficient, because of the highest precision and accuracy, and the lower consumption of sample and buffer. The amperometric biosensors used as detectors in the flow systems were based on l- and d-amino acid oxidase (AAOD). The linear concentration ranges are in the nmol l-1 range, from 120 pmol l-1 to 40 nmol l-1 (3+S.D.), with very low detection limits. The biosensors/flow system can be used reliably online in synthesis process control, for the simultaneous assay of S- and R-pdp with a frequency of more than 30 samples per h.

IT 82834-16-0, Perindopril 145513-48-0
RL: ANT (Analyte); ANST (Analytical study).
(resolution of perindopril using amperometric biosensors as detectors in flow systems)

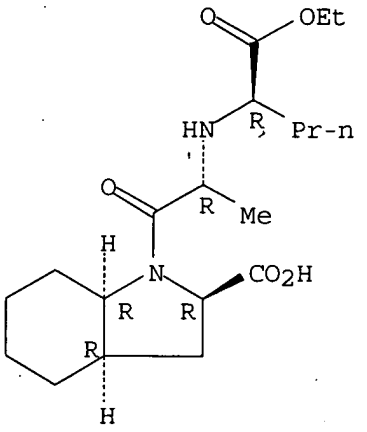
RN 82834-16-0 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 145513-48-0 HCAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[(2R)-2-[[(1R)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-, (2R,3aR,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	73.97	931.15
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-9.00	-9.75

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